REMARKS AND ARGUMENTS

A. Claim Status

Claims 1-19 are pending in the application. Claims 1-19 stand rejected under 35 U.S.C. § 103(a) and under 35 U.S.C. § 102(b)

B. Amendments

Claims 6 and 7 have been canceled.
Claims 1 and 14 have been amended.
Claim 1 now recites specific ranges for a phenolic anti-oxidant and a liquid phosphite. This amendment is fully supported in the specification, e.g. at ¶ 0008. Claim 1 now also states that the anti-oxidant and liquid phosphite are dispersed or dissolved in the liquid carrier. This amendment is fully supported in the specification, e.g. at ¶¶ 0005 and 0030. No new matter has been introduced.

Claim 14 now recites a method for melt viscosity control. This amendment is fully supported by the specification as a whole. Also, Claim 14 now recites that the stabilizer composition is sprayed onto a polypropylene, which is in powder form. This amendment is supported in the specification, e.g. at ¶0030. Claim 14 now also recites that the anti-oxidant and liquid phosphite are dispersed or dissolved in the liquid carrier. This amendment is fully supported in the specification, e.g. at ¶¶ 0005 and 0030. None of these amendments to Claim 14 introduce new matter.

C. Arguments

1. Rejections based on 35 U.S.C. § 103(a)

Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Calabrese (US 6,348,514 or WO99/16821) in view of Sanders (US 5,324,798). Applicants respectfully traverse these rejections.

MPEP 2144.05, III states "A *prima facie* case of obviousness may . . . be rebutted by showing that the art, in any material respect, teaches away from the claimed invention." Claims 1 and 14, both independent, have been amended. Claim 1 now recites concentration ranges for the phenolic anti-oxidant, namely 50 -100 ppm (i.e. 0.005 - 0.01 percent) and for the liquid phosphite, namely 150-500 ppm (i.e. 0.015 - 0.05 percent). By contrast, Calabrese teaches "In general, the addition of from about 0.01 to about 5, preferably from about 0.02 to about 1 and more preferably from about 0.05 to about 0.25 percent, of stabilizer composition by weight . . . provides generally good results" (col. 3, lines 32-36). Thus the present application recites phenolic antioxidant concentrations that are *at most* 100 ppm, while Calabrese *teaches away* from concentrations much below 100 ppm. The instant specification teaches that excessive concentrations of stabilizers result in high costs and poor fiber quality, and are therefore undesirable in fiber processing (¶ 0003). Calabrese, by contrast, teaches that increasing the concentration produces more desirable results.

It follows that one of ordinary skill in the art would not have been motivated by Calabrese to try the low concentrations of phenolic antioxidant claimed in this application. It also follows that the one of ordinary skill likewise would not be motivated to combine this reference with Sanders, since the latter reference does nothing to address the differences in ranges employed by Calabrese and in the present application.

It also follows that the reduction and control of melt viscosity taught and recited in the present application are unexpected results with respect to Calabrese, results arising from the use of relatively low concentrations of antioxidant. As stated in MPEP, 8th edition, 2141, p. 2100-114,

"Objective evidence or secondary considerations such as unexpected results . . . are relevant to the issue of obviousness and must be considered in every case in which they are present." Applicants therefore respectfully submit that the instant invention is patentably non-obvious over Calabrese.

Furthermore, the invention of Calabrese is directed primarily to the use of one particular phenolic antioxidant, not emphasized in the instant application: "The essential stabilizer composition of this invention is methyl 3-(4-hydroxy-3,5-di-tert-butylphenyl)propionate, made by known processes" (Col. 2, lines 41-43). See also col. 1, lines 13-18 and Claim 1.

Claim 14 has been amended and now recites a method for improving the melt viscosity control of polypropylene for fiber processing. Examiner acknowledges that Calabrese does not specifically teach a method for improving the melt viscosity of polypropylene, but considers this "an additional albeit possibly unrecognized benefit" and "a mere recognition of latent properties in the prior art". In Examiner's written response to a telephone interview conducted June 3, 2003, Examiner states that a composition and its properties are inseparable. Applicants respectfully disagree with these statements as applied to the present application, for the reasons following.

First, as explained above, the composition disclosed in Calabrese and the composition disclosed in this application are distinct from one another, owing to the substantial *lack* of overlap of the respective ranges for the concentration of the phenolic anti-oxidant, to the reference teaching away from lower concentration of antioxidant, and to the emphasis in the reference on one particular antioxidant which is not the one claimed in the instant application.

Second, MPEP 2141.02 states "Obviousness cannot be predicated on what is not known at the time an invention is made, even if the inherency of a certain feature is later established. *In re Rijckaert*, 9 F.2d 1531, 28 USPQ2d 1955 (Fed. Cir. 1993)." Calabrese does not teach a method for improving the melt viscosity control of polypropylene, nor does he provide any motivation for one of ordinary skill in the art to try his composition for the purpose of improving melt viscosity control.

Third, MPEP 2112 states " 'In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teaching of the applied prior art.' *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)". Applicants respectfully submit that Examiner has not met this requirement. The Calabrese invention is concerned with the prevention of "scorch" in the production of foams, while the present invention is concerned with controlling the melt viscosity in the production of fibers. It is known to those of ordinary skill in the art that scorch is premature vulcanization (crosslinking). (See, e.g., Maurice Morton, ed., Rubber Technology (2nd edition), Robert E. Krieger Publishing, Florida, 1981, p. 88). By contrast, in this application, the control of melt viscosity is achieved by the prevention of chain scission (See, e.g., E. P. Moore, Jr., ed., Polypropylene Handbook, Hanser Publishers, Munich, 1996, p. 181). No basis in fact has been presented in support of the idea that the addition of stabilizers to prevent scorch may also bring about control of melt viscosity. The only technical reasoning presented is the statement that a composition and its properties are inseparable. However, as discussed above, the compositions of Calabrese and the present application cannot be considered the same, owing to the lack of substantial overlap in ranges of stabilizer concentration. Furthermore, since Calabrese provides no motivation in the first place to try his composition in order to improve melt viscosity control, this substantial lack of overlap cannot reasonably be considered as simply a matter of experimental variation.

With the amendments of Claims 1 and 14, and with the arguments of this section, Applicants respectfully traverse Examiner's rejection of claims 1-19 under 35 U.S.C. § 103 (a).

2. Rejections based on 35 U.S.C. § 102 (b)

Claims 1-6 and 9-13 stand rejected under 35 U.S.C. 102 (b) as being anticipated by EP411628 a published EP application, for which the applicant is Himont, Incorporated, hereafter referred to as "Himont". Applicants respectfully traverse these rejections.

The Himont reference teaches a range of 0.025 to 0.2 percent [i.e. 250 to 2000 ppm] for a phenolic antioxidant, and further teaches that concentrations higher than these are preferred (abstract; p. 2, lines 36-38). In the present application, by contrast, Claim 1, as amended, recites 50 to 100 ppm of a phenolic anti-oxidant. There is no overlap between these ranges, and the range of the present application is lower than that of the reference. As mentioned above, the instant specification teaches that excessive concentrations of stabilizers result in high costs and poor fiber quality, and are therefore undesirable in fiber processing (¶ 0003). Applicants respectfully submit that the Himont reference does not anticipate the present invention.

Applicants therefore respectfully traverse Examiner's rejection of claims 1-6 and 9-13 under 35 U.S.C. § 102 (b).

3. Persuasiveness of Arguments

Examiner has stated that Applicants' arguments in response to the first office action have been fully considered but they are not persuasive. Applicants respectfully disagree.

Examiner states, "As recited in the claims of Calabrese the preferred stabilizers include those of the present invention. These teachings suggest what Applicant has done. Furthermore, Applicant has not shown any unexpected results . . . nor are the showings commensurate in scope with the claims." Applicants respectfully submit that these teachings do *not* suggest what Applicants have done, and Applicants *have* shown unexpected results with respect to the Calabrese reference, as explained in Section C1, above. Furthermore, Applicants respectfully submit that showings *are* commensurate with the scope of the claims as amended here, since the claims address a problem (control of melt flow viscosity in the production of fibers) distinct from that of Calabrese (prevention of scorch in the production of foams) and recite concentration ranges distinct from those of Calabrese and fully supported in the instant specification.

Examiner acknowledges, "Calabrese does not teach a method for improving the melt viscosity of polypropylene for use in fiber processing." However, Applicants respectfully disagree with Examiner's statements that the present invention is unpatentable by virtue of being an

"unrecognized benefit" or "[m]ere recognition of latent properties" in the prior art. The basis for Applicants' disagreement is given in paragraphs 6 through 9 of section C1, above.

D. Interview

On June 3, 2003, a telephone interview was conducted with Examiner and Applicants' Agent to discuss the instant Final Office Action. Agreement with respect to the claims was not reached.

E. Conclusion

Applicants believe that the foregoing amendments and remarks have overcome or rendered moot all grounds for rejection and objection, and that the application is in a condition for allowance. Applicants therefore respectfully request prompt action on the claims and allowance of the application. If Examiner believes that personal communication will expedite prosecution of the application, Examiner is invited to telephone Applicants' undersigned agent directly.

AUTHORIZATION

Applicants believe that no extension of time is required to make submission of the response timely. However, in the event that an extension of time is required, Applicants hereby submit a petition for such extension of time as may be necessary to make this response timely. The Commissioner is hereby authorized to charge any necessary additional fees for extension of time or additional claims to deposit account No. 502194. A duplicate of this Authorization is enclosed.

Respectfully Submitted,

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